

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 05099377
 PUBLICATION DATE : 20-04-93

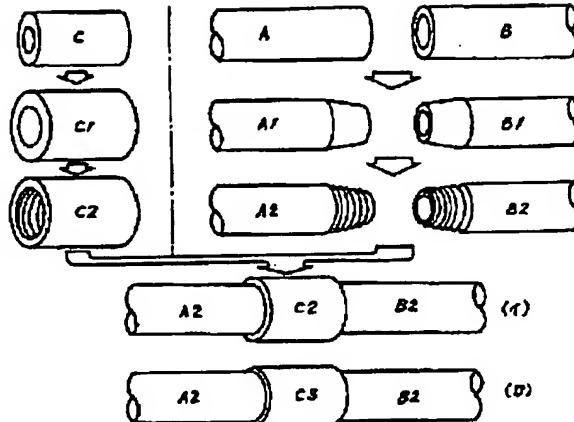
APPLICATION DATE : 16-04-91
 APPLICATION NUMBER : 03084275

APPLICANT : WATANABE KOGYO:KK;

INVENTOR : SHIBATA RYOJI;

INT.CL. : F16L 15/00 F16L 13/00 F16L 13/14

TITLE : FASTENING METHOD FOR PIPE



ABSTRACT : PURPOSE: To eliminate the need for a sealing agent and perform a positive fastening of pipes without generating high screwing torque by screwing the pipe, which has a rolled external thread on its end, into a shape-memory alloy pipe joint with an internal thread, and heating the joint part so as to be contracted.

CONSTITUTION: After a cylinder C made of a shape-memory alloy stores the state of the cylinder, the cylinder is turned into a state C1 by pipe expanding treatment for expanding the inner diameter of the cylinder, and after the expansion an internal thread is threaded in the cylinder to turn the cylinder into a state C2, and thus a shape-memory alloy pipe joint is obtained. The end parts A, B of pipes are machined to be tapered to obtain the states A1, B1, and then external threads are rolled on the end parts to obtain the states A2, B2. After the threads of both the pipes A2, B2 and the joint C2 are fastened to each other, the shape-memory alloy joint part is heated to be contracted, and fastened to each other. Thus, a constant, constantly stabilized fastening of the pipes can be realized.

COPYRIGHT: (C)1993,JPO&Japio